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ABSTRACT

Steps the United States is taking to lessen the danger of war while building international confidence and security are described. The commitment of the United States to arms control is based on the conviction that the United States and the Soviet Union have a common interest in the avoidance of nuclear war and the survival of the human race. A responsible national security policy must include both strong deterrence and active pursuit of arms control. Described in this guide are the comprehensive proposals that the United States has developed on each of the following eight major arms control issues: strategic arms, intermediate-range nuclear forces, conventional forces, chemical weapons, curbing nuclear testing, limiting the spread of nuclear weapons, reducing the risk of miscalculation, and space arms control. Each of the proposals is designed to cut the level of arms, establish a more stable military balance at reduced levels, and strengthen world peace. Also provided in the guide are a list of arms control agreements and an arms control glossary. (RM)

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A Short Guide to U.S. Arms Control Policy

SO 016 438

October 1984

United States Department of State
Bureau of Public Affairs
Washington, D.C.

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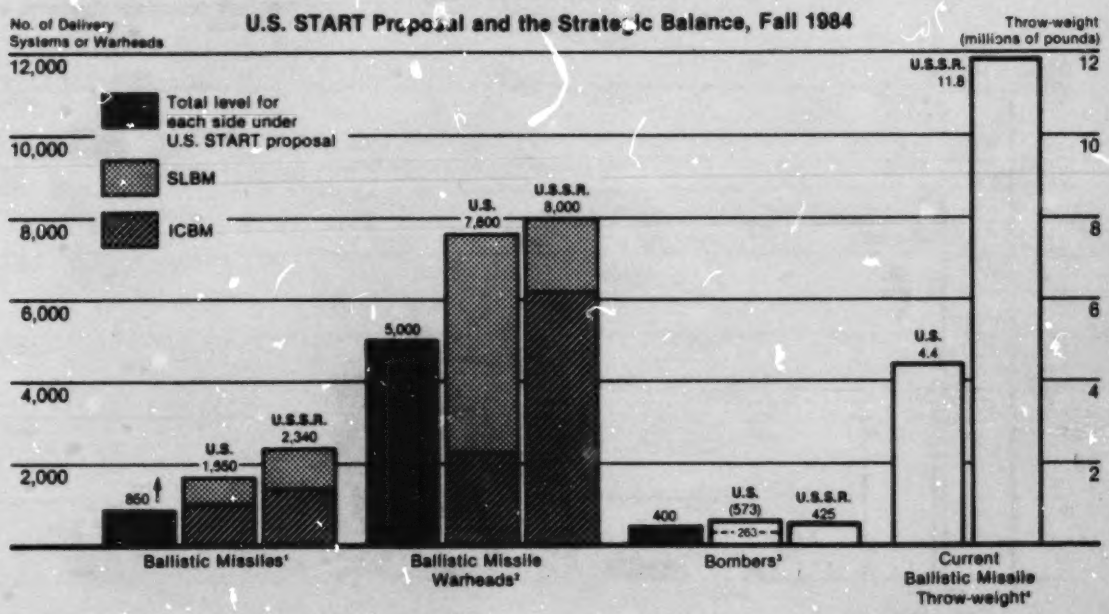
Errata for p. 7 of "A Short Guide to U.S. Arms Control Policy"

The following chart revises and updates the original version:



[1]The original START proposal was to reduce the total level of deployed ballistic missiles for each side to 850. However, in response to Soviet concerns, in June 1983 the United States indicated that it would be flexible about the level of deployed ballistic missiles.

[2]Figures are for actual or deployed ballistic missile warheads. Under SALT counting rules, the numbers would be somewhat higher.

[3]The U.S. figure includes 263 currently operational B-52s. The remainder are in storage, museums, ground training, etc., but are charged to the U.S. account under SALT counting rules.

The U.S.S.R. figure includes Bear, Bison, and Backfire bombers.

[4]Under the U.S. START proposal, the 3 to 1 disparity in throw-weight (to the Soviets' favor) would be substantially reduced.

Intermediate-range Nuclear Forces

In addition to its strategic ICBM forces which threaten the United States, the Soviet Union has long deployed intermediate-range missiles that could strike targets in NATO. However, the new Soviet SS-20 missile—a triple-warhead, highly accurate, and mobile weapon—changed the nuclear balance in Europe and presented a new and disturbing nuclear threat to everything within its 3,300-mile range.

"Dual-Track" Approach

Concerned about the effect this new imbalance might have on the defense of Europe, NATO adopted a "dual-track" approach in December 1979. One "track" was to redress the imbalance in intermediate-range nuclear forces (INF) through deployment in Western Europe, starting in 1983, of 108 Pershing II ballistic missiles and 464 ground-launched cruise missiles. Meanwhile, on the other track, the United States would negotiate with the Soviets to restore an INF balance at the lowest possible level.

Under the dual-track decision, the NATO alliance set guidelines for INF arms control. These were announced by President Reagan in February 1983.

- There must be equality of rights and limits.
- The negotiations should include U.S. and Soviet systems only.
- Limitations must be applied on a global scale, with no transfer of the threat from Europe to Asia. (Many additional SS-20 missiles are already deployed in the Asian part of the Soviet Union.)
- NATO's conventional defense capability must not be weakened.
- Any agreement must be effectively verifiable.

INF Negotiations

In accordance with the dual-track decision, the United States immediately offered to begin negotiations with the U.S.S.R. The Soviets at first refused to negotiate unless the NATO deployment decision was overturned. They reconsidered in July 1980, and preliminary exchanges were held at the end of the year. Formal talks began in November 1981.

At the beginning of the talks, President Reagan offered not to deploy the Pershing II and cruise missiles if the Soviets would eliminate their SS-20s as well as

Overview

Today the United States has the special challenge of preserving its own freedom and that of its allies, while engaging the Soviet Union in efforts to reduce the risk of war. This challenge arrived with the dawn of the nuclear age when the United States emerged from World War II as the leader of the Western democratic nations. After 1945 the United States could no longer isolate itself from world affairs—not when nations possessed the means to destroy each other on a scale no one before had thought possible.

Since World War II, the United States and its allies have been forced to respond to a series of threats to their security. Despite repeated aggressive Soviet actions in the postwar period—from the occupation and repression of Eastern Europe to the invasion of Afghanistan—direct conflict between the United States and the Soviet Union has been avoided and there has been no resort to nuclear weapons.

During this period we have taken every opportunity to lessen the threat posed by the existence of nuclear weapons. In 1946, the United States proposed elimination of nuclear weapons and international control of nuclear energy under the Baruch Plan. This plan was rejected by the Soviet Union as was President Eisenhower's "open skies" proposal of 1955 to the Soviets to permit mutual reconnaissance over each other's territories. Nevertheless, even in times of tension and changes of leadership on both sides, the dialogue has continued. In the last 25 years, American presidents all have followed Truman and Eisenhower on the same path toward reducing the danger of war.

Arms control is an important part of the effort to increase security and keep the peace. We think arms control should help stabilize the military balance at the lowest possible levels, build mutual confidence, and expand the area of cooperation between the superpowers.

There are skeptics who question the value of the arms control process. "Since we can't trust the Soviets to honor agreements," they say, "why bother to try to negotiate with them?" There are others who ask whether our goals of a strong defense and workable arms control agreements are compatible.

Our commitment to arms control is based on the conviction that

the United States and the Soviet Union have a common interest in the avoidance of nuclear war and the survival of the human race. A responsible national security policy must include both strong deterrence and active pursuit of arms control, neither of which we can afford to neglect. Given the imperative need for effective arms control, which should be recognized by both sides, we think we should be able eventually to arrive at agreements with the Soviets that contain real safeguards against possible violations.

The effort to control weapons, of course, is not a product of the nuclear age. History has seen many attempts to negotiate limits on major armaments. The goals have always been to shift resources to more productive uses and to make safer a world of political rivalries. Before World War I, Britain and Germany negotiated on ways to limit naval construction. Between World Wars I and II, there were negotiations to limit the building of warships, including a major naval disarmament agreement signed in Washington, D.C., in 1922. The Kellogg-Briand Pact of 1928 even attempted to ban war itself as an instrument of policy.

These efforts failed to prevent war. There is a lesson here: the endeavor to control armaments does not operate in a vacuum.

Basic U.S. Arms Control Objectives

- **Substantial reductions.**
- **Equality of rights and limits.**
- **Increased security for the United States and its allies; reduced risk of war.**
- **Effectively verifiable agreements.**

Arms control cannot resolve the conflicts that lead to competitive arming in the first place. By itself it cannot deliver security or stop wars from breaking out. Although equitable and verifiable arms control agreements themselves can contribute to reducing tensions, basic stability must underlie political relations between the superpowers.

Arms control negotiations between the United States and the Soviet Union have always been difficult and laborious. The Soviets' view of their military requirements and their dislike of effective measures of verification have been obstacles to agreement.

Our arms control efforts have been protracted. The 1963 Limited Test Ban Treaty followed 8 years of negotiation and discussion. The 1968 Non-Proliferation Treaty

took 4 years to negotiate. The SALT I [strategic arms limitation talks] accords of 1972 took almost 3 years of effort, and negotiations for the SALT II Treaty lasted nearly 7 years.

There are differences of history, geography, strategic doctrine, alliance obligations, and comparative military advantage that complicate the task of compromise. The Soviets long have had an advantage in larger, more powerful intercontinental ballistic missiles (ICBMs); the United States took advantage of its technological superiority by developing missile-carrying submarines, smaller warheads, and a more broadly based deterrent. It is difficult to define equality between different kinds of forces. The problem is compounded by other factors such as the extent of air defenses, civil defense, and "hardening" of missile silos and of "command and control" facilities, in which the two sides' forces also differ.

The task of arms control has been further complicated by a continuing revolution in technology. Many of our strategic assumptions have been made obsolete by rapid technological changes in the past decades. Not only is there no "quick fix" in arms control, but there is no "permanent fix" either.

For example, ceilings on numbers of strategic missile launchers were more meaningful in an era of missiles with single warheads. Now, in an age of heavy intercontinental missiles, each capable of carrying large numbers of accurate warheads, limits on missiles or their launchers alone are no longer sufficient. Significant reductions in numbers of warheads, and Soviet movement away from reliance on heavy ICBMs, are needed for strategic stability.

Negotiations and U.S. Initiatives

- **START (U.S.-U.S.S.R.)—Revised U.S. position, June and October 1983.**
- **INF (U.S.-U.S.S.R.)—Revised U.S./NATO position, March, September, and November 1983.**
- **MBFR (NATO-Warsaw Pact)—Revised U.S./NATO position, April 1984.**
- **Conference on Disarmament in Europe (Europe, U.S., and U.S.S.R.)—Opened January 1984.**
- **Conference on Disarmament—Proposed chemical weapons ban, April 1984.**
- **U.S.-Soviet Communications Improvements—Hotline upgrade agreement, July 1984.**

The Reagan Administration has emphasized four basic arms control objectives.

Reductions. Agreements should actually limit military capabilities of superpowers by substantially reducing weapons and forces, not merely freezing them at existing levels, or even allowing them to grow further, as most previous agreements have done.

Stability. Arms control measures must genuinely enhance stability in crises. This means that after reductions, each side's retaliatory force should be secure enough to survive if the other side strikes first. Thus, neither side would want to fire first knowing that retaliation would surely follow.

Equality. These reductions should result in equivalent levels of force on both sides. An agreement that leaves an unequal balance of forces creates instability and may increase the risk of eventual conflict.

Verification. Finally, we want measures in our arms control agreements that will make sure that both sides live up to their obligations. Experience has shown that agreements that are not verifiable build tension and mistrust, rather than increasing the prospects for peace. The record of Soviet violations or probable violations of a number of arms control obligations underlines that effective verification is essential.

With these principles as guideposts, the United States continues to work toward lessening the danger of war while building international confidence and security. On each of eight major arms control issues, the United States has developed a comprehensive set of proposals designed to cut the level of arms, establish a more stable military balance at reduced levels, and strengthen world peace.

Strategic Arms

Since 1969, we have negotiated with the Soviet Union to control strategic nuclear weapons—those that can travel intercontinental distances—the most powerful weapons in either country's arsenal. The negotiations held between 1969 and 1979 were called the strategic arms limitation talks (SALT).

SALT I was signed and ratified in 1972. Although the United States and the U.S.S.R. signed the SALT II Treaty in 1979, it was not ratified by the U.S. Senate. This was partly due to the political climate created by the Soviet invasion of Afghanistan. In part, however, this was due to flaws within the SALT II agreement itself.

Nevertheless, we told the Soviets that the United States would do nothing to undercut existing agreements, including SALT II, as long as the Soviets did the same. We wanted to build on what was positive in the SALT II agreement while offering a new approach to correct its flaws.

After studying the record of previous arms control agreements and the current strategic situation, the Reagan Administration began a new approach in June 1982. This was the strategic arms reduction talks, known as START.

SALT to START

While SALT sought *limitation*, constraint of further growth in numbers of weapons, START seeks *reduction*, a reversal of this growth. Besides deep cuts in strategic force levels, START gives priority to a lower risk of war and greater stability. "Stability" in this connection refers to a situation in which neither side believes that there would be advantage to striking first in a crisis.

The current Soviet advantage in land-based intercontinental ballistic missiles threatens this stability. Compared to submarine-launched ballistic missiles (SLBMs) and heavy bombers, ICBMs combined accuracy, speed, constant combat readiness, and enormous explosive power. However, ICBMs in fixed bases can be damaged or wiped out by enemy nuclear attack, while submarines under water and bombers in the air are less vulnerable. One country's ability to destroy another country's missiles before they are launched could reduce the damage that it

might suffer in retaliation. ICBMs thus are the weapons most capable of being used for a first strike and the most important target for such an attack. A shift away from excessive reliance on fixed land-based ICBMs would help both sides because it would lessen the incentive and ability to launch a first strike.

We want to improve upon the SALT process by trying to get the total number and size of nuclear weapons well below those contained in current arsenals. Another aim is to create a more stable peace by decreasing the proportion of dangerous ICBMs among deployed nuclear weapons. "Ballistic missile warheads" are specifically limited in our proposals because many missiles today carry several separate weapons. SALT limited numbers of missile launchers but not the warheads that are the real instruments of destruction.

U.S. START Proposals

Our original START proposal called for:

- Reductions in deployed ballistic missile *warheads* by one-third, to 5,000 for each side, of which no more than 2,500 would have been on intercontinental ballistic missiles;
- A limit of 850 deployed ballistic *missiles* (roughly one-half the current U.S. inventory); and
- Equal levels of heavy *bombers*, including the Soviet Backfire bomber.

The United States originally proposed that the reductions take place in phases. The first systems to be reduced would be the most dangerous ones. A second phase would have put equal ceilings on other elements of U.S. and Soviet strategic forces.

Flexibility in Negotiations. During a year and a half and five rounds of START negotiations, we tried to move these talks toward our goal of smaller and safer nuclear arsenals. We have made clear our willingness to discuss *tradeoffs* of Soviet advantages (for instance, ground-based ICBMs) and U.S. advantages (for instance, air-launched cruise missiles). In response to the Soviet criticism that U.S. proposals would force major changes in Soviet forces, we offered to look at other ways to reduce the destructive power of ballistic missiles. In response to the Soviet charge that the original U.S. proposal was not "comprehensive" (it did not cover all strategic systems at one time), we dropped our two-phased approach.

Build-down Initiative. In October 1983, after consulting Congress, we put in our START position a proposal for a mutual, guaranteed build-down of strategic forces. Our goal of reductions re-

mains the same; build-down, however, provides a concrete plan for getting to lower levels of weapons. Reductions would be accomplished in one of two ways:

- Each side would remove at least one ballistic missile warhead for each new one deployed, until the level of 5,000 for each side is reached. This process would encourage deployment of missiles with single warheads; or
- Each side would have to reduce its ballistic missile warheads by about 5% per year until the 5,000 level is reached. This would make sure that reductions take place even when one side does not choose to modernize its nuclear forces.

We also proposed a build-down of heavy bombers.

Soviet Position

Naturally, the Soviets brought their own ideas to the START negotiations. In response to our far-reaching proposals, they were apparently ready to consider much bigger cuts than in SALT II. They proposed to reduce missiles and bombers by about one-quarter, using counting methods established in SALT. Their proposal did not, however, go far enough to reduce the two countries' forces. Nor did it concentrate on ballistic missiles, the most destabilizing kind of nuclear weapons.

At the end of round V in December 1983, the Soviets would not agree to setting a date for the next round of talks. They stated that this was due to NATO deployment of Pershing II and cruise missiles in Europe. We regret that they took this totally unjustified move, and we remain prepared to return to the talks at any time. We believe that even when there are deep disagreements, it is in the interest of both sides to keep working for common ground.

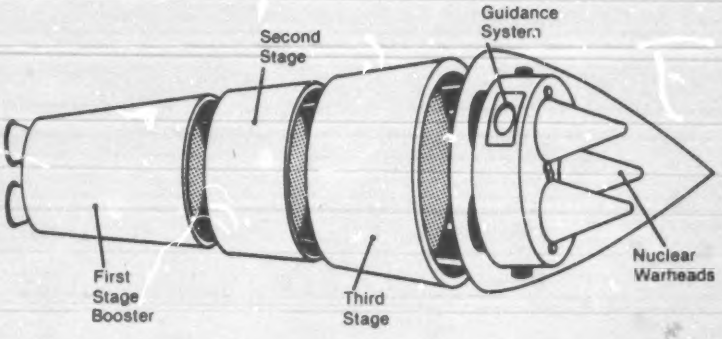
their older longer range INF (LRINF) missiles. This "zero option" would eliminate an entire class of U.S. and Soviet nuclear weapons and strike a balance for the United States and U.S.S.R. of no such missiles on either side.

The Soviet Union proposed to limit NATO and Soviet forces in Europe only, thus allowing more missiles in Asia, where weapons would not be limited. They also insisted on "taking into account" independent British and French forces. The effect of this Soviet proposal—and all the variations of it that followed—would have been to prevent the deployment of a single Pershing II or cruise missile, while the Soviets retained a formidable arsenal of SS–20s.

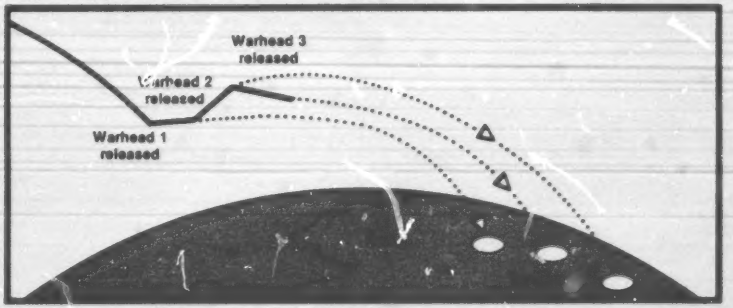
The "Walk in the Woods"

In the summer of 1982, U.S. and Soviet negotiators developed an informal "package," or possible

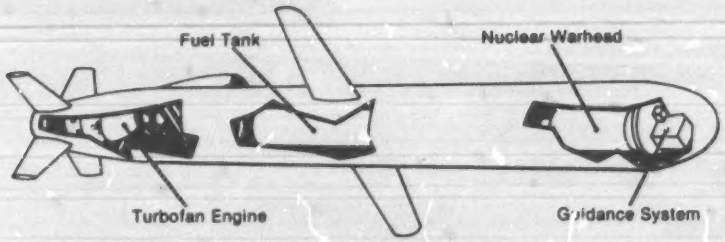
Ballistic Missile



Trajectory (Path)



Cruise Missile



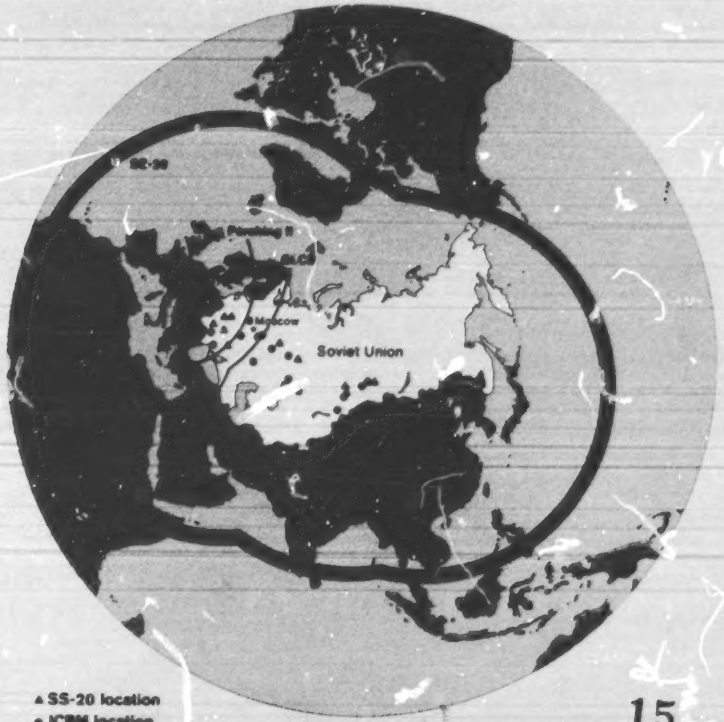
Trajectory (Path)

agreement, for consideration by the two governments. It was called the "walk in the woods" proposal because it was supposedly arrived at by the two chief negotiators during a stroll after lunch. It would have set equal levels of longer range INF missile launchers in Europe, no Pershing II deployment, and a freeze on SS-20s in the Asian part of the U.S.S.R. Although we had problems with the package, we authorized our negotiator to discuss it with his Soviet colleague. Moscow rejected the package as well as further informal negotiations on it.

Further U.S. Proposals

Following extensive discussions within the NATO alliance and between the United States and Japan, President Reagan announced a new proposal on March 30, 1983. He offered to scale back planned deployments to as low a level as the Soviet Union would ac-

Target Coverage of Soviet SS-20 and NATO Pershing II and Ground-Launched Cruise Missiles



▲ SS-20 location
● ICBM location

cept, as long as the Soviets reduced their own longer range INF missile deployments to an equal global level of warheads. President Reagan reaffirmed that the zero/zero outcome remained the alliance's long-term negotiating objective. The Soviets, however, rejected this new "interim agreement" proposal.

On September 22, 1983, we tried to respond directly to Soviet concerns with three new proposals. We said we were prepared to:

- Consider a commitment not to offset the entire worldwide Soviet longer range INF missile deployment by our deployments in Europe. We would retain the right to deployments elsewhere.
- Reduce both Pershing IIs and cruise missiles, rather than just one or the other.
- Explore possible limits on some U.S. and Soviet land-based aircraft.

President Reagan stated at the UN General Assembly that, with these initiatives, "The door to an agreement is open." Nonetheless, Moscow refused to take up the U.S. suggestion to explore the new ideas.

Walk Out

On November 23, 1983, the Soviets walked out of the INF talks, protesting votes in the parliaments of Great Britain, Italy, and West Germany that reaffirmed the dual-track decision and the subsequent arrival of U.S. longer range INF missiles in Europe. We are prepared to resume negotiations without preconditions. The Soviets insist that NATO longer range INF missile deployments be removed before they will talk. Their SS-20 deployments, however, continued throughout 2 years of talks—at the rate of one SS-20 per week—and are still underway. The U.S.S.R. has never said at what level it will stop the deployments.

Intermediate-range Nuclear Forces

U.S. Proposal

- Zero/zero proposal—elimination of all U.S. and Soviet land-based longer range INF missiles.
- As an interim outcome, low, equal numbers of warheads.
- Global in scope—applies to Europe and Asia.
- Verification measures.

Soviet Proposal

- Half-zero proposal—hundreds of longer range INF missiles for U.S.S.R., none for United States.
- Compensation for U.K. and French nuclear forces.
- Applies to Europe only.

NATO's Nuclear Reductions

Far from increasing the number of NATO's nuclear weapons, the 1979 dual-track decision has been followed by dramatic reductions. As part of the 1979 decision, the allies decided to remove 1,000 nuclear weapons from Europe in 1980 and an additional weapon for each Pershing II and cruise missile that we have to deploy. The alliance then decided in October 1983 to remove another 1,400 nuclear weapons from the NATO stockpile. This means that, even at full deployment levels, at least five nuclear weapons will have been withdrawn for each Pershing II or ground-launched cruise missile in Europe. When the reductions are complete, the number of U.S. nuclear weapons in Europe will be at the lowest level in 20 years.

Conventional Forces

Central Europe is the scene of the most massive concentration of conventional military power in the world. It is also the only region where U.S. and Soviet ground forces directly confront one another. The East is still adding to its long-held numerical superiority in almost all kinds of conventional forces in the region. As these large forces are burdens to all of the nations involved, the NATO allies have initiated an effort to reduce the military presence of both sides in the region through arms control negotiations.

MBFR Talks

Actual talks between those NATO and Warsaw Pact countries with troops in Central Europe began in Vienna in 1973. These are the talks on mutual and balanced force reductions (MBFR), which are still going on today. NATO proposals at the MBFR talks have held to three standards.

Parity. The negotiations should result in an end to the conventional force advantage of the East in the area. This advantage increases international instability, threatens NATO security, and might lead the East to miscalculate during a crisis that aggression could succeed.

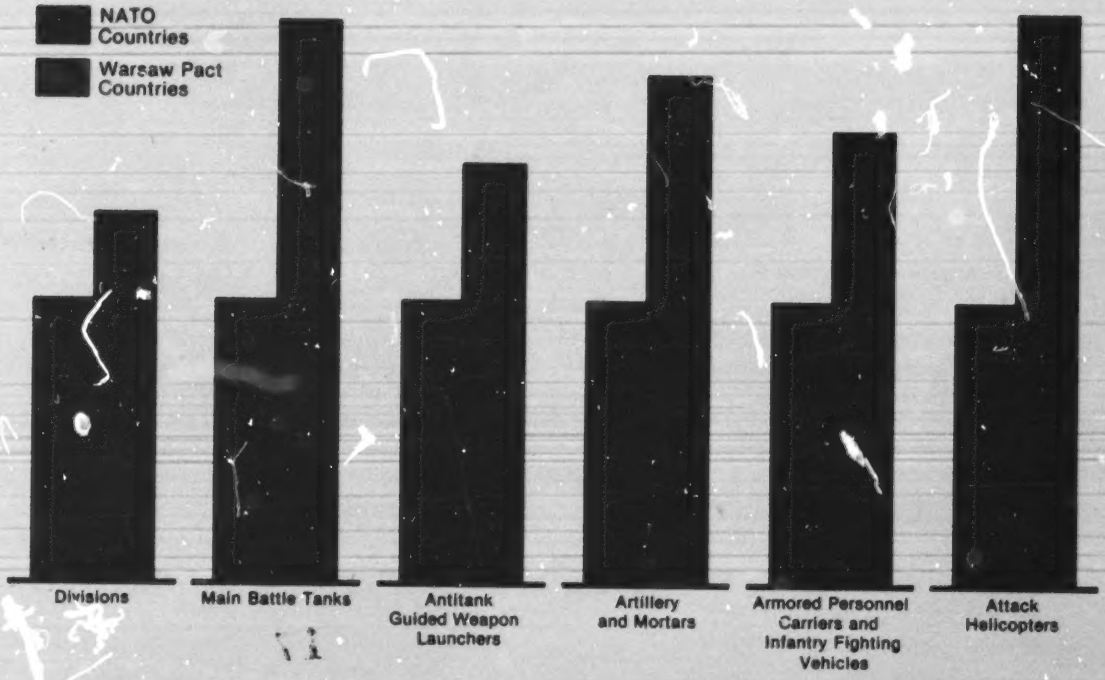
Reductions. Although the East would have to reduce more than the West to achieve parity, the West also would make sizable reductions of its own to achieve significantly lower overall force rates.

Confidence. Since each side must be confident that the other is not cheating for a force reduction agreement to work, there must be some way to check on possible violations. The West has offered various combinations of measures to build confidence on both sides that the agreement is being kept.

Though the East initially rejected the idea of parity, it has since accepted it as a goal. However, East and West have been unable to agree on the current strength of Warsaw Pact forces in the region. While the West is confident of its estimates, which show an imbalance of forces favoring the East, the East disagrees and has come forward with numbers indicating nearly even force levels.

Despite the lack of agreement, the negotiations have produced

Comparison of NATO-Warsaw Pact Ground Forces in Place in Europe



some achievements. Guiding principles have been established, and a better understanding of the two sides' security concerns has evolved. Bargaining continues. In April 1984, the West made a new proposal aimed at breaking the deadlock over the current force strength question as well as over verification issues. The new proposal offers to defer full agreement on the size of Eastern forces until after the first reductions. In return, we asked for Eastern flexibility in agreeing to Western verification requirements. The initial Soviet reaction has not been positive. Nevertheless, we remain committed to our original goals and will continue to negotiate, convinced that an MBFR agreement would benefit both sides.

NATO and the Warsaw Pact

The North Atlantic Treaty Organization (NATO) was founded in 1949 to provide an integrated military force for the defense of Western Europe and North America. From the beginning, the organization was designed to promote wide cooperation in political, economic, social, and scientific fields as well as military security.

Members: Belgium, Canada, Denmark, France, Federal Republic of Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Turkey, United Kingdom, United States.

The Warsaw Pact on Friendship, Cooperation and Mutual Assistance comprises the U.S.S.R. and its East European allies. Signed in 1955, it provides a common defense system and machinery for coordinating foreign policy.

Members: Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, U.S.S.R.

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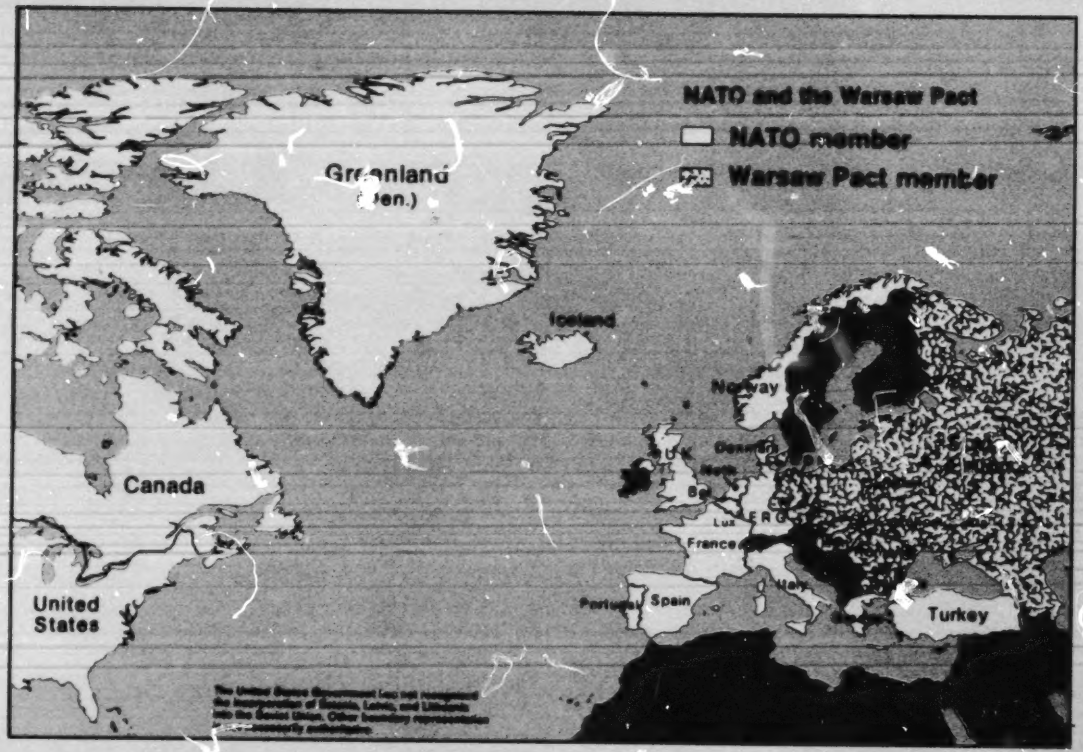

Chemical Weapons

Chemical weapons in the form of chlorine, mustard, and other poison gases claimed more than 1 million casualties in World War I. To keep such a tragedy from happening again, the 1925 Geneva Protocol was negotiated. It is one of the oldest arms control agreements still in force.

During World War II, the United States and Great Britain made clear that they would not use chemical weapons first but would retaliate on military objectives if the Axis Powers employed them. In 1943, President Roosevelt stated that the United States would regard a chemical attack upon any of its allies as an attack upon itself. Faced with this resolute policy of deterrence, poison gas was not used.

The United States is committed to the banning of chemical weapons development, production, stockpiling, transfer, and use, as well as to the destruction of existing chemical weapons stocks and production facilities. On April 28, 1984, Vice President Bush presented at the 40-nation Conference on Disarmament in Geneva a draft treaty banning chemical weapons and their use. We proposed strong verification and compliance provisions, including prompt international inspection in the event of a suspected treaty violation.

Chemical and Toxin Weapons Use

Reports of the use by the Soviet Union or its allies of lethal chemical and toxin (poisonous biological products) weapons in Laos, Kampuchea, and Afghanistan have surfaced over the past several years. Thorough investigations have led to the conclusion that chemical and toxin agents have been used in these countries. An unexplained outbreak in 1979 of pulmonary anthrax (a deadly disease usually affecting animals) in Sverdlovsk, U.S.S.R., also has raised disturbing questions about possible Soviet manufacture of biological weapons.

Evidence of the use of chemical weapons in the Iran-Iraq war led to an international investigation launched by the UN Secretary General in March 1984. Reports of the use of such weapons were confirmed and have been condemned by members of the UN Security Council. In addition, the United States and other nations have placed special export controls on chemicals that can be used to make such weapons.

Arms Control Implications of Chemical, Biological, and Toxin Weapons

The use of these terrifying materials, largely against defenseless people, shows how badly we need more effective international controls. In addition to the 1925 Geneva Protocol, which bans the use of chemical weapons, the United States and many other nations have signed the 1972 Biological Weapons Convention, which bans the development, possession, and use of biological and toxin weapons. Unfortunately, neither agreement contains truly effective measures to prevent cheating.

In late 1982, the UN General Assembly supported convening a conference to make the Biological Weapons Convention more effective. We strongly support this proposal.

The United States and Control of Chemical Weapons

We want a verifiable chemical weapons ban that will really work. Until we have such a ban, we must maintain a limited chemical weapons deterrent and defensive capability. The draft treaty presented by the Vice President provides for:

- Declaration and systematic international onsite inspection of chemical weapons stocks and production facilities;
- Destruction of both chemical weapons stocks and production facilities;
- Declaration and onsite inspection of the operation of other facilities for permitted production of chemicals that pose a high risk of being diverted to chemical weapons production; and
- An "open invitation" challenge inspection provision whereby suspected treaty violations in military or government-owned or -controlled facilities would be investigated within 24 hours of a complaint.

We also have had direct talks with the Soviets on our proposed chemical weapons limitations. These discussions have involved possible supplementary procedures that might be established by our two countries.

Curbing Nuclear Testing

After World War II, tests of nuclear devices spurred rising concerns about the harmful effects of radioactive fallout. Since the 1950s, all U.S. administrations have sought verifiable limitations on nuclear testing that would contribute to arms control, safeguard the environment, and provide the means to maintain an adequate deterrent. Early efforts to reach an agreement failed, partly over the problem of how to check on possible violations.

Testing Moratorium

It is dangerous not to include effective means of verification in arms control agreements. This was shown by the fate of the testing moratorium implemented by the United States, the Soviet Union, and the United Kingdom in 1958. The moratorium held until 1961. After secret preparations during the moratorium, the U.S.S.R. then resumed testing with 40 atmospheric tests in 2 months. This was the largest concentrated series of nuclear explosions ever conducted. If real safeguards had been included in the original agreement, the Soviets could not have prepared for the tests without our awareness.

Limited Test Ban Treaty

Negotiations among the Americans, British, and Soviets resumed in the summer of 1963. A ban on testing in the atmosphere, under water, and in outer space—environments in which both sides agreed that existing verification technology was adequate—was negotiated within 10 days and ratified in October 1963. The treaty is of unlimited duration and has since been signed by nearly 125 nations.

Threshold Test Ban and Peaceful Nuclear Explosions Treaties

The 1974 U.S.-Soviet Threshold Test Ban Treaty prohibits nuclear weapons tests of any type with yields above 150 kilotons. The United States and the Soviet Union also agreed to apply a similar threshold of 150 kilotons to their underground nuclear explosions for peaceful purposes in the 1976 Peaceful Nuclear Explosions Treaty. It is a necessary comple-

ment to the threshold test ban, for there is no real difference between the nuclear technology used to produce a nuclear weapon and that used for "peaceful" explosions. The U.S.S.R. maintains an active "peaceful" nuclear explosions program. We do not.

Neither treaty has ever been ratified by the U.S. Senate. Although both sides have said they are keeping to the 150 kiloton limit, we do not think the verification provisions are firm enough. We believe that the U.S.S.R. has probably violated the Threshold Test Ban Treaty, but we cannot be completely sure without better ways of checking. We have proposed to the U.S.S.R. that negotiations be held to improve verification. They have yet to agree.

Comprehensive Test Ban

From 1977 through 1980, the United States, the United Kingdom, and the Soviet Union met periodically to negotiate a comprehensive test ban, a total stop to nuclear testing. We failed to reach agreement on several major issues, including verification. The United States agreed in 1982 to setting up a working group in the Conference on Disarmament in Geneva to discuss how a test ban could be checked and made to work.

Achieving a ban on all nuclear weapons tests remains a long-term U.S. goal. But a test ban by itself cannot end the nuclear threat. It must be verifiable and come into force in circumstances in which it can contribute to peace and security. The United States has given priority to arms reductions and to strengthening verification measures for existing agreements on the limitation of nuclear testing.

Limiting the Spread of Nuclear Weapons

Arms control could not really limit the risk of nuclear war if it did not stop the spread of nuclear weapons. This has led the United States and many other nations to look for ways to promote peaceful nuclear programs while blocking the building of new nuclear arsenals.

Development of U.S. Nonproliferation Policy

At the end of World War II, the Truman Administration and the American scientific community knew that the Manhattan Project to develop weapons had been based upon concepts in theoretical physics understood by scientists for some time. That was one reason why the United States in 1946 proposed the Baruch Plan, under which an international authority would control all nuclear technology and develop it for peaceful rather than military purposes. However, the Soviet Union rejected this proposal. Faced with the potential danger of proliferation, the United States imposed strict controls on nuclear exports with the Atomic Energy Act of 1946.

President Eisenhower made a dramatic innovation in this policy in December 1953 when, in a famous UN speech, he inaugurated his "Atoms for Peace" program. The President offered other countries assistance in developing nuclear energy in return for pledges to use nuclear technology solely for peaceful purposes. This assistance took the form of research reactors, hardware, technical assistance, and training for thousands of scientists and engineers. Subsequently, the Atomic Energy Act of 1954 eliminated the U.S. Government monopoly on nuclear technology and opened the way for the use of nuclear energy in America for generating electricity and for industrial and medical applications by private firms and citizens under a formal license process.

Key Elements of the U.S. Nonproliferation Efforts

The Atoms for Peace proposal showed the way for a new international organization, the International Atomic Energy Agency (IAEA). The IAEA, formed in 1957, has two purposes:

- To promote the peaceful application and uses of atomic energy; and
- To set up safeguards so that civilian nuclear technologies are not used for military purposes.

IAEA officials inspect nuclear facilities to ensure that materials are not being used to make weapons. The 110 countries belonging to IAEA also agree to have special seals and cameras as safeguards on their nuclear materials and equipment.

Nonproliferation Treaty

At the United Nations in 1961, the Government of Ireland proposed a Non-Proliferation Treaty, an international agreement to halt the spread of nuclear weapons. It was completed in 1968 and went into force in 1970. Under this treaty countries that already have nuclear weapons pledge not to help others gain a nuclear capability. Those who do not yet have such a capability agree not to make or buy nuclear weapons and to open their nuclear powerplants and research facilities to international inspection by the IAEA.

Nuclear Supplier Cooperation

Concern about the adequacy of safeguards under the IAEA and the Non-Proliferation Treaty led us to begin discussions with other nuclear suppliers—including the Soviet Union, several West European countries, Canada, and Japan—to tighten the rules and procedures for the export of nuclear supplies, components, and technology. In 1977, these 15 nations, in what became known as the London Suppliers' Group, agreed to general principles on trade in items that might spread the development of nuclear weapons.

The Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco)

Signed in 1967, this is the only treaty to provide for a nuclear-weapons-free zone in a populated region of the world. It is now in force for 22 Latin American and Caribbean countries. The main provision prohibits development or use of nuclear weapons by states within the region. Two supplementary agreements call on states outside the region to respect the denuclearization provisions of the zone.

Nuclear Nonproliferation Act

The Nuclear Nonproliferation Act was signed into law by President Carter on March 10, 1978. It established specific criteria for nuclear exports and provides a

stronger congressional role in U.S. export policy. Under the act, non-nuclear-weapon countries seeking significant U.S. nuclear cooperation must accept IAEA safeguards on all of their peaceful nuclear facilities.

U.S. Nonproliferation Policy

In our present diplomatic efforts we are trying to:

- Prevent the spread of nuclear weapons to additional countries by improving regional and global stability and understanding of the legitimate security concerns of other states;
- Promote adherence to the nuclear Non-Proliferation Treaty and the Treaty of Tlatelolco;
- Cooperate with other nations to strengthen the IAEA and its safeguards system; and
- Inhibit the transfer of sensitive nuclear material, equipment, and technology and seek agreement requiring IAEA safeguards on all nuclear activities in non-nuclear-weapon states.

We are working with the Soviet Union and other countries to strengthen international nonproliferation measures. As President Reagan pointed out in a March 31, 1983, speech, arms control efforts cannot be successful without an effective nonproliferation poli

Reducing the Risk of Miscalculation

Better understanding of the other side's intentions and actions helps reduce the possibility of an East-West confrontation arising by accident or miscalculation. We have been involved with the Soviets in a wide range of discussions on ways to improve worldwide security and stability, often called "confidence-building measures." Confidence-building measures generally have no direct bearing on the size, weaponry, or structure of military forces. Their purpose is to reduce the chance of unintended confrontation or conflict, to make surprise attack more difficult, and to enhance stability in times of crisis.

Bilateral Measures

Over the last two decades, we have reached agreement with the Soviets on several measures designed to reduce the risk of accidental nuclear war.

- The "Hot Line" Agreement, signed in 1963, established a direct teletype communication link between Washington and Moscow for use by top leaders, particularly during crises. A second agreement, signed in 1971, added satellite circuits which began operation in 1978. On July 17, 1984, we and the Soviets agreed to improve the hotline. We will be able to relay messages more rapidly and send graphic materials such as maps or pictures for the first time.
- The "Accidents Measures" Agreement, signed in 1971, requires each side to maintain safeguards against the accidental or unauthorized use of nuclear weapons.
- The "Incidents at Sea" Agreement, signed in 1972, obligates the two sides to observe strictly the International Regulations for Preventing Collisions at Sea, to refrain from potentially provocative acts at sea, and to notify mariners of situations that may represent a danger to navigation. In addition, the U.S. Navy and the Soviet Navy meet each year for discussions on naval incidents.
- The SALT II agreement contains a provision requiring advance notification of ICBM launches that might be mistaken for the opening of a nuclear attack.

In addition to these agreements, the United States has proposed three other measures to the Soviet Union: a direct communications link for the exchange of critical military and technical information (called the Joint Military Communications Link), upgraded diplomatic communications links, and a proposal on how the two sides could facilitate communications in the event of a nuclear incident caused by unauthorized or unknown individuals, including terrorists.

At the strategic arms reduction talks (START) and intermediate-range nuclear forces (INF) talks in Geneva, the following ideas were raised by the U.S. negotiators:

- Advance notification of all ICBM and longer range INF missile launches;
- Advance notification of all sea-launched ballistic missile launches;
- Prior notification of major nuclear force exercises; and
- Expanded exchanges of information about strategic and intermediate-range nuclear forces.

Multilateral Proposals

A wide range of multilateral measures designed to prevent war through surprise attack or miscalculation and to improve communications in times of military crisis have been proposed at recent talks. The Conference on Security and Cooperation in Europe (CSCE) and its offshoot, the Conference on Confidence- and Security-Building Measures and Disarmament in Europe (CDE), have specifically addressed these measures.

The United States and the 34 other countries which signed the Helsinki Final Act of 1975 should provide notification of major maneuvers involving more than 25,000 troops and invite observers to these activities. Notification of smaller scale maneuvers is voluntary. NATO states have notified the other side of all major maneuvers and have invited Warsaw Pact observers to attend many of them. In addition, they have notified the East of 34 smaller exercises to help build confidence. In contrast to NATO, the Warsaw Pact has responded with the bare minimum of notifications. They have not notified us of all their major maneuvers and have

seldom invited observers to witness their activities.

The Madrid CSCE review conference agreed in 1983 to set up a special conference, the CDE, to reduce the risk of military confrontation in Europe. This conference began in Stockholm in January 1984 and will continue until the next CSCE review conference in 1986 in Vienna. Thus far, East and West have promoted very different approaches to the improvement of security in Europe. The West offered concrete proposals to reduce the risk of accidental war. The East has called for various declarations of good will such as: non-use of force pledges, the establishment of nuclear-free zones in Europe, reduction of military budgets, and a ban on chemical weapons in Europe. None of these ideas contains real ways to follow up.

MBFR Negotiations

NATO proposed new verification and stabilization measures in the MBFR talks in 1979. These call for detailed inspection procedures, controls on exit and entry of forces into the zone of reductions, exchanges of information on the size and structure of military forces, and notification of major troop activities. If agreed to, these proposals would do much to build confidence in Europe.

Space Arms Control

The United States has taken a lead role in negotiation of a number of major international agreements that limit space weapons, notably the Limited Test Ban Treaty of 1963, the 1967 Outer Space Treaty, and the 1972 Anti-Ballistic Missile (ABM) Treaty. These agreements form a substantial body of international law concerning space arms control. They include a ban on testing or deployment of nuclear weapons in space; a ban on placing military installations on celestial bodies; a ban on development, testing, and deployment of space-based anti-ballistic missile systems; and a requirement for consultation before any activity is taken in space that might harm the activities of other nations engaged in the peaceful use of outer space.

In June 1984, the Soviet Union proposed negotiations on the "militarization of outer space." We quickly accepted the Soviet invitation without preconditions. In so doing, we indicated that it would be appropriate for the discussions to consider how to resume negotiations on offensive nuclear arms, as well as negotiating approaches on verifiable and effective controls on antisatellite weapons (ASATs).

Antisatellite Weapons

One of the stated Soviet goals in its proposal was to ban all ASATs. In fact, unlike the United States, the Soviets have long had an operational ASAT system. It would be difficult to be sure that the Soviets had dismantled their system. This is one important reason why it appears almost impossible to verify a complete ban on ASATs. However, the door has not been closed on all ASAT arms control. Limits on ASATs must be looked at not only for possible limitation of damage to space satellites but also for the impact of these space arms on arms control policy with respect to conventional and nuclear weapons on Earth. The U.S. national space policy, announced by President Reagan on July 4, 1982, is consistent with the longstanding U.S. approach to space arms control in previous agreements. The essence of the policy is that:

> The United States will continue to study space arms control options. The United States will consider verifiable and equitable arms control that would ban or otherwise limit testing and deployment of specific weapons systems, should those measures be compatible with United States national security.

Following these guidelines, the United States has been studying a range of possible options for space arms control.

There are three basic potential benefits to a space arms control measure that would meet these standards. For example, an agreement might: preserve and increase stability by limiting threats to key early warning satellites; raise the political costs for attacks against satellites by adding to existing restrictions on such threats and in the process adding to existing international law aimed at lowering the chances of conflict in space; and relieve some international concern over various uses of space.

Satellites assist both the United States and the U.S.S.R. in monitoring arms control agreements and in acquiring early warning of attack. These satellites thus contribute to preventing war. In absence of the verifiable dismantling of existing Soviet ASATs, the development of a U.S. ASAT would serve to deter the Soviets from using theirs.

The Soviet Union has had a working antisatellite interceptor since the early 1970s. By developing our own ASAT, we would have the capability to respond in kind to a Soviet ASAT attack. A U.S. system also would help deter war by providing the capability, within the limits of international law, to deny an adversary the use of space-based systems that provide support to hostile military forces. These include satellites that would provide targeting data to Soviet weapon platforms for attacks on U.S. and allied naval and land forces.

Strategic Defense Initiative

On March 23, 1983, President Reagan announced the beginning of a research effort now known as the Strategic Defense Initiative (SDI). This program will explore the possibility of strengthening deterrence through recent advances in technologies that eventually could provide an effective defense against ballistic missiles. This initiative should provide sound technical alternatives that could allow a future U.S. president and Congress to decide in consultation with our allies whether to proceed with such a defense.

As President Reagan made clear at the start of this project, all SDI research will be consistent with U.S. treaty obligations. The Soviets, who are upgrading the world's only existing ABM system, are actively researching both conventional and advanced ballistic missile defense technologies. They are almost certainly violating the ABM Treaty by constructing a radar in Siberia that could help them establish a nationwide missile defense system.

The United States has repeatedly offered government-to-government discussions with the Soviet Union on the implications of defensive technologies being explored by both countries.

Prospects

Arms control negotiations have continued between the Soviet Union and the United States even in times of tension and through major changes of leadership on both sides. The Soviets brought part of this dialogue to a halt in late 1983, but a variety of discussions nonetheless are continuing. The United States stands ready to go forward with all these negotiations in a spirit of give-and-take.

Since the dawn of the nuclear age, U.S. policymakers have been committed to the search for peace. Since 1945, the United States has chosen a consistent path: maintaining military strength, working with allies, and negotiating with the Soviet Union. By emphasizing the common interests between the superpowers, we firmly believe it is possible to find a way to reduce the danger of war while still defending the essential American values of individual liberty and democratic choice.

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Record of Arms Control Agreements

The Antarctic Treaty (1959)—Agreement that Antarctica would be used only for peaceful purposes.

"Hot Line" Agreement (1963)—For direct communications between the United States and the U.S.S.R. during international crises.

Limited Test Ban Treaty (1963)—Prohibits nuclear weapons testing in the atmosphere, outer space, or under water.

Outer Space Treaty (1967)—Prohibits stationing weapons of mass destruction in space.

Treaty of Tlatelolco (1967)—Prohibits the testing, use, manufacture, or acquisition of nuclear weapons in Latin America.

Treaty on the Non-Proliferation of Nuclear Weapons (1968)—To prevent the spread of nuclear explosives and to provide for international safeguards on civil nuclear activities.

Seabed Arms Control Treaty (1971)—Prohibits the emplacement of nuclear weapons on the seabeds and ocean floor beyond a 12-mile coastal zone.

"Accidents Measures" Agreement (1971)—Provides for U.S.-Soviet measures to reduce the likelihood of accidental nuclear war.

Biological Weapons Convention (1972)—Prohibits the development, production, and stockpiling of biological and toxin weapons.

Anti-Ballistic Missle (ABM) Treaty (1972)—Imposes limitations on defenses against ballistic missile weapons.

Interim Agreement on strategic offensive arms (1972)—Froze the number of U.S. and Soviet strategic ballistic missile launchers. Together with the ABM Treaty usually known as SALT I.

Conference on Security and Cooperation in Europe (CSCE) (1975)—Contains a provision on confidence-building measures that provides for notification of major military maneuvers in Europe.

Glossary

ABM system—Antiballistic missiles; see "Ballistic missile defense."

Arms control—The process of limiting or reducing arms to increase security and stability by lessening the risk of conflict and reducing the consequences of a conflict should it occur.

Arms stability—The condition of greater predictability and restraint which lessens the incentives for reactive force buildups.

Assured destruction—The ability of a country, even after absorbing a first strike, to inflict an unacceptable degree of damage upon an aggressor.

Ballistic missile—A missile, propelled into flight by its own engines, that moves toward a target on a free-falling trajectory.

Ballistic missile defense (BMD)—A defensive system which destroys incoming ballistic missiles or their warheads. The Soviets have a BMD system around Moscow. The U.S. has no such system deployed. The term "antiballistic missile system" or "ABM" is often used interchangeably with BMD.

Biological warfare—Use of living organisms and poisonous biological products (toxins).

Build-down—Proposal that would ensure that as strategic forces are modernized a greater number of older weapons are removed.

Ceiling—Upper limit establishing, by an arms control agreement, the numbers of weapons or forces that a state might deploy.

Chemical weapons—Harmful substances used to cause injury through their chemical actions. This does not include chemical agents for such purposes as research, domestic law enforcement, or riot control.

Command, control, and communications (C^3)—The complete set of hardware, people, and procedures used by the national leadership and commanders at all levels to direct the operation of military forces.

Confidence-building measures—Measures taken to increase the visibility and mutual understanding of military activities in order to reduce the risk of miscalculation or surprise attack. These are aimed more at securing trust than limiting weaponry.

Crisis stability—A strategic relationship in which neither side has an incentive to be the first to use force in a crisis.

Cruise missiles—Small, unmanned airplanes carrying nuclear or high explosive warheads. They

can be launched from airplanes, trucks, ships, or submarines.

Disarmament—As used at the United Nations, all measures related to the limitation, reduction, or elimination of weapons and military forces.

Deployment—Distribution of a weapon system to military units—the final stage in putting new weapons in place.

Deterrence—A condition in which a state is dissuaded from attack because it believes the potential costs would outweigh any possible gain.

Dual-capable weapons—Those system capable of delivering either conventional or nuclear weapons.

Encryption—The encoding of communications or other data for the purpose of concealing information.

Escalation—An increase in scope of violence of a conflict.

Fallout—The spread of radioactive particles from clouds of debris produced by nuclear blasts.

First strike—An attack with nuclear weapons in which the attacker attempts to destroy all or most of its adversary's strategic nuclear forces before they can be launched, so that the defenders cannot retaliate.

Flexible response—A strategy to deter and, should deterrence fail, to counter aggression with the necessary level of force.

Hardened site—A site constructed to withstand the blast and other effects of a nuclear attack.

Intercontinental ballistic missile (ICBM)—A land-based fixed or mobile rocket-propelled vehicle capable of delivering a warhead to intercontinental ranges (i.e., to ranges in excess of 5,500 kilometers or about 3,400 miles).

Intermediate-range nuclear forces (INF)—Land-based nuclear systems with a range greater than that of short-range nuclear forces but less than intercontinental range.

Kiloton—Explosive energy equal to that of 1,000 tons of TNT.

Launcher—The equipment required to launch a missile. Launchers can be either fixed or mobile.

Megaton—Explosive energy equal to that of 1 million tons of TNT.

Monitoring—Collecting, analyzing, and reporting data on the activities of the other party to an arms control agreement.

Moratorium—A suspension of activity, sometimes mutually arrived at pending a final agreement.

Multiple independently-targetable reentry vehicle (MIRV)—One of a package of reentry vehicles carried by a single missile and delivered on separate targets.

National technical means (NTM)—Ways of checking that the other side does what it said it would do in an arms control agreement. NTM include photographic reconnaissance satellites, aircraft-based systems (such as radars and optical systems), as well as sea-

and ground-based systems such as radars and antennas for collecting telemetry.

On-site inspection—A means of verification involving a visit to the actual place where weapons are produced or deployed.

Parity—A level of forces in which opposing nations possess approximately equal capabilities.

Payload—The weapons and penetration aids carried by a delivery vehicle.

Proliferation—The spread of weapons to states not previously possessing them.

Qualitative limitations—Restrictions on capabilities of a weapons system as distinct from limits on numbers.

Quantitative limitations—Numerical limits on the number of weapons systems in certain categories, as distinct from qualitative limits on weapons capabilities.

Reentry vehicle (RV)—That portion (or portions) of a ballistic missile, containing a warhead, which reenters the Earth's atmosphere in the last part of the missile's trajectory.

Reprocessing plant—A facility required to separate the uranium and plutonium present in spent reactor fuel.

Short-range nuclear forces (SNF)—Land-based missiles and artillery that are capable of striking only targets in the general region of the battlefield (less than 880 kilometers or about 550 miles).

Standing Consultative Commission—A permanent U.S.-Soviet commission established in accordance with the SALT I agreements.

Throw-weight—A measure of the destructive capability of a ballistic missile; the useful weight placed on a trajectory toward the target by the boost or main propulsion stages of the missile.

Triad—A shorthand expression often used to describe the three separate types of strategic nuclear forces: land-based ICBMs, sea-based SLBMs, and bombers.

Verification—The process of determining whether parties to an agreement are in compliance with their obligations.

Warhead—The part of a missile system that explodes and causes damage to the target.

Yield—The energy released in an explosion. The energy released in the detonation of nuclear weapons is generally measured in terms of kilotons or megatons of TNT.

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